



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,253	03/07/2002	Kunimasa Shimizu	Q66589	9282

7590 07/05/2006
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3202

EXAMINER	
GLASS, RUSSELL S	
ART UNIT	PAPER NUMBER
3626	

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/092,253	Applicant(s) SHIMIZU ET AL.	
	Examiner Russell S. Glass	Art Unit 3626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 17-19, 33, 53 and 54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 17-19, 33, 53 and 54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/7/02 2/1/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 13-16, 20-32, 34-52, 55-69, 70-72, are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on June 5, 2006.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. **Claims 3, 4, 11, 12, 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.** The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As per claims 3 and 11, the claims contain "an automatic determination means which automatically makes examination" that is not described in the specification to the extent to allow one of ordinary skill in the art to make or use the invention. In particular,

Art Unit: 3626

the specification does not disclose how such a determination can be made automatically, i.e., without human intervention.

As per claims 4, 12, and 19, the claims further disclose "weighting the/by individual diagnoses" that is not described in the specification to the extent to allow one of ordinary skill in the art to make or use the invention. In particular, the specification discloses a weighting process that is directed by and controlled by a human, i.e., not automatic or repeatable because a different person could assign different weights to the individual diagnoses.

For example, the specification starting on page 44, line 19 describes two examples wherein two diagnoses A and B, are weighted 1.0 and 0.5, and then 0.5 and 1.0, respectively. Each example produces an opposite result and in each example the final determination is the result of the subjective weighting applied by the supervisor, not an automatic process.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3, 4, 11, 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the claims contain "an automatic determination means which automatically makes examination" that is not described in the specification to the extent to allow one of ordinary skill in the art to

Art Unit: 3626

understand the invention. In particular, the specification does not disclose how such a determination can be made automatically, i.e., without human intervention. Therefore, the claim is vague and indefinite to the extent that it refers to the disclosed means as “automatic” or as operating “automatically”.

3. **Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.** In particular, the claims contain “an information output means which receives”. The claim is vague and indefinite because it is unclear how a system can receive via an output means.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 3626

4. **Claims 1, 2, 5, 7, 8, 9, 10, 17, 18, 33, 53, 54 are rejected under 35 U.S.C. 102(e) as being anticipated by Wong et al., (U.S. 6,260,021).**

5. As per claim 1, Wong discloses a medical image reading system comprising:

a plurality of diagnostic clients provided with an image output means which outputs image data to be examined as a visible image, and a diagnosis input means for inputting individual diagnoses obtained on the basis of visible images, (Wong, Abstract, col. 3, lines 30-60; col. 11, lines 29-48) (disclosing processing of various diagnostic images for the purpose of diagnosis by a client/user, such as X-ray, MRI, ultrasound, etc.),

at least one management client provided with a result output means for outputting result of examination obtained on the basis of the individual diagnoses, (Wong, Abstract; Fig. 2; col. 9, line 34-63; col. 11, lines 29-48; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would send information including the number of diagnostic images and associated results to be transmitted to a management client in the form of an Object Request Broker), and

a server provided with an image storage means and a result storage means which are connected to the diagnostic clients and the management client by way of a network, the image storage means storing image data to be examined and the result storage means storing results of examination obtained on the basis of the individual diagnoses with the results of examination related to the image data, (Wong, Abstract; col. 3, line 60 - col. 4, line 15), wherein

Art Unit: 3626

each of the diagnostic clients receives the image data to be examined from the server by way of a network, outputs the image data to be examined through the image output means and sends individual diagnoses input through the diagnosis input means for the respective images represented by the image data to be examined to the server by way of the network, (Wong, Abstract; col. 4, lines 15-48),

the server causes the result storage means to store results of examination obtained on the basis of the individual diagnoses sent from the respective diagnostic clients, (Wong, Abstract; col. 11, lines 29-48; col. 12, lines 65 - col. 13, line 62), and

the management client receives the result of examination from the server by way of the network and causes the result output means to output the same, (Wong, Abstract; Fig. 2; col. 9, line 34-63; col. 11, lines 29-48; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would send information including the number of diagnostic images and associated results to be transmitted to a management client in the form of an Object Request Broker).

6. As per claim 2, Wong discloses a medical image reading system in which said server is further provided with an informing means which, when the server receives a predetermined number of said diagnoses, sends information to the effect that the server has received a predetermined number of said diagnoses to the management client and the management client is provided with an information output means which receives the information and outputs the same, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would

Art Unit: 3626

send information including the number of diagnostic images and associated results to be transmitted to a management client in the form of an Object Request Broker).

7. As per claim 5, Wong discloses a medical image reading system in which client is connected by way of a network to a server provided with an image storage means which stores image data to be examined and a result storage means which stores results of examination obtained on the basis of the individual diagnoses, and comprises

- a data receiving means which receives the image data to be examined from the server, (Wong, Abstract Figs. 1, 2; col. 3, line 60 - col. 4, line 15),
- an image output means which outputs the image data to be examined as a visible image, (Wong, Abstract Figs. 1, 2; col. 3, line 60 - col. 4, line 15),,
- a diagnosis input means for inputting individual diagnoses obtained on the basis of visible images, (Wong, Abstract Figs. 1, 2; col. 3, line 60 - col. 4, line 15),, and
- a data sending means which sends the individual diagnoses input through the diagnosis input means to the server, (Wong, Abstract Figs. 1, 2; col. 3, line 60 - col. 4, line 15).

8. As per claim 7, Wong discloses a medical image reading system in which client is connected by way of a network to a server provided with an image storage means which stores image data to be examined and a result storage means which stores results of examination obtained on the basis of the individual diagnoses, and comprises

Art Unit: 3626

a data receiving means which receives results of examination from the server, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would send information including diagnostic images and associated results for transmission to a management client in the form of an Object Request Broker), and

a result output means which outputs the results of examination received by the data receiving means, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62).

9. As per claim 8, Wong discloses a system in which said data receiving means is further provided with an information output means which receives information to the effect that the server has received a predetermined number of said diagnoses from the server and outputs the same, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would send information including the number of diagnostic images and associated results).

10. As per claim 9, Wong discloses a server for a medical image reading system in which server is connected by way of a network to a plurality of diagnostic client and at least one management client and comprises

an image storage means which stores image data to be examined, (Wong, Abstract Figs. 1, 2; col. 9, line 34 - col. 10, line 27),

a data sending means which sends the image data stored in the image storage means to the diagnostic clients, (Wong, Abstract Figs. 1, 2; col. 9, line 34 - col. 10, line 27),

a data receiving means which receives from the diagnostic clients individual diagnoses obtained on the basis of the image data to be examined, (Wong, Abstract Figs. 1, 2; col. 9, line 34 - col. 10, line 27), and

a result storage means which stores results of examination obtained on the basis of the individual diagnoses with the results of examination related to the image data to be examined, (Wong, Abstract Figs. 1, 2; col. 9, line 34 - col. 10, line 27), wherein

said data sending means is further provided with a function of sending to the management clients the results of examination stored in the result storage means, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would send information including diagnostic images and associated results for transmission to a management client in the form of an Object Request Broker).

11. As per claim 10, Wong discloses a server in which said data sending means is further provided an information sending means which sends to the management client information to the effect that the server has received a predetermined number of said diagnoses, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would send information

including the number of diagnostic images and associated results for transmission to a management client in the form of an Object Request Broker).

12. As per claim 17, Wong discloses a medical image reading method comprising the steps of

storing image data to be examined in a server which is provided at a place remote from a plurality of diagnostic clients and connected to the diagnostic clients by way of a network, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62),

causing each of the diagnostic clients to receive a desired piece of image data out of the image data stored in the server and to output the desired piece of image data as a visible image, (Wong, Abstract Figs. 1, 2; col. 9, line 34 - col. 10, line 27),

inputting individual diagnoses obtained on the basis of the output visible image through the diagnostic clients, (Wong, Abstract, col. 3, lines 30-60; col. 11, lines 29-48) (disclosing processing of various diagnostic images for the purpose of diagnosis by a client/user, such as X-ray, MRI, ultrasound, etc.),

sending the individual diagnoses to the server, storing in the server results of examination obtained on the basis of the individual diagnoses sent thereto with the results of examination related to the pieces of image data, (Wong, Fig. 2; col. 9, line 34-63), and

causing a management client to receive the result of examination for a desired piece of image data stored in the server and to output the same, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62) (disclosing well-known client/server architecture and

Art Unit: 3626

object-oriented formats that would send information including diagnostic images and associated results for transmission to a management client in the form of an Object Request Broker).

13. As per claim 18, Wong discloses a medical image reading method further comprising the step of causing the server, when the server receives all the diagnoses, to send information to the effect that the server has received all of said diagnoses to the management client, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would send information including the number of diagnostic images and associated results for transmission to a management client in the form of an Object Request Broker).

14. As per claim 33, Wong discloses a program for causing a computer to execute processing of sending medical image data to a sever by way of a network,

processing of sending a request for receiving a desired piece of medical image data out of image data stored in the server to the server, (Wong, col. 6, lines 1-55), and

processing of outputting as a visible image the desired piece of medical image data, (Wong, col. 6, lines 1-55).

15. As per claim 53, Wong discloses a program for causing a computer to execute

processing of sending a request for receiving medical image data related to a predetermined examination out of image data stored in a sever by way of a network to the server, (Wong, col. 6, lines 1-55),

processing of receiving medical image data as requested by the request for receiving medical image data, (Wong, col. 6, lines 1-55), and

processing of outputting as a visible image the medical image data received, (Wong, col. 6, lines 1-55).

16. As per claim 54, Wong discloses a program for causing a computer to further execute

processing of sending, to the server, purpose information representing the purpose of examination together with the request for receiving medical image data related to the predetermined examination, (Wong, col. 6, lines 1-55, col. 11, lines 29-48)(patient visit information is considered to be purpose information), and

processing of receiving medical image data related to the predetermined examination within an available range determined purpose by purpose on the basis of the purpose information, (Wong, col. 6, lines 35-55) (available range is considered to be search results within request criteria).

Art Unit: 3626

17. Claims 3, 4, 6, 11, 12, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al., (U.S. 6,260,021), in view of Marchosky, (U.S. 2002/0029157).

18. As per claim 3, Wong fails to disclose a medical image reading system in which said server further comprises an automatic determination means which automatically makes examination for a given piece of image data on the basis of all or part of the individual diagnoses received and outputs result of examination. However, such a system is well-known in the art as evidenced by Marchosky, (Marchosky, Abstract, Fig. 2B, 2C, 4D: ¶ 79-82) (disclosing an automatic determination means for examining image data).

It would have been obvious to one of ordinary skill in the art to combine Wong and Marchosky. The motivation would have been to allow weighted diagnostic program information, including imaging, to be incorporated in to a computerized medical record database, (Marchosky, Abstract; Fig. 4D).

19. As per claim 4, Wong fails to disclose a medical image reading system in which, each of the diagnostic clients is provided with a function of sending data on the doctor in charge together with the relevant individual diagnosis to the server so that the automatic determination means makes examination weighting the individual diagnoses according to the doctor in charge. However, such a system is well-known in the art as evidenced

by Marchosky, (Marchosky, Abstract, Fig. 3: ¶¶ 75-78, 91) (disclosing weighting diagnostic information and storing information related to the doctor in charge).

It would be obvious to one of ordinary skill in the art to modify Marchosky in order to weight variables according to the doctor in charge. The motivation would have been to eliminate any bias in the results, (Marchosky, ¶¶ 94).

20. As per claim 6, Wong fails to disclose a diagnostic client in which said data sending means sends data on the doctor in charge together with the relevant individual diagnosis to the server. However, such a diagnostic client is well-known in the art as evidenced by Marchosky, (Marchosky, ¶¶ 91).

21. As per claim 11, Wong fails to disclose a server in which said data sending means is further provided with an automatic determination means which automatically makes examination for a given piece of image data on the basis of all or part of the individual diagnoses received and outputs result of examination. However, such a server is well-known in the art as evidenced by Marchosky, (Marchosky, Abstract, Fig. 2B, 2C, 4D: ¶¶ 79-82) (disclosing an automatic determination means for examining image data).

22. As per claim 12, Wong fails to disclose a server in which said data receiving means receives data on the doctor in charge together with the relevant individual diagnosis from the diagnostic client, and the automatic determination means makes

Art Unit: 3626

examination weighting the individual diagnoses according to the doctor in charge.

However, such a server is well-known in the art as evidenced by Marchosky, (Marchosky, Abstract, Fig. 3: ¶¶ 75-78, 91) (disclosing weighting diagnostic information and storing information related to the doctor in charge).

It would be obvious to one of ordinary skill in the art to modify Marchosky in order to weight variables according to the doctor in charge. The motivation would have been to eliminate any bias in the results, (Marchosky, ¶¶ 94).

23. As per claim 19, Wong fails to disclose a medical image reading method as in which the result of examination is weighted by individual diagnoses. However, such a method is well-known in the art as evidenced by Marchosky, (Marchosky, Abstract, Fig. 3: ¶¶ 75-78, 91) (disclosing weighting diagnostic information).

It would be obvious to one of ordinary skill in the art to modify Marchosky in order to weight variables as claimed. The motivation would have been to eliminate any bias in the results, (Marchosky, ¶¶ 94).

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows: Pinsky et al., (5,655,084); Jamroga et al., (U.S. 6,574,742); DiRienzo, (U.S. 6,006,191); Sitka et al., (U.S. 6,349,373); Patel et al., (U.S. 7,007,274); Inga et al., (U.S. 5,321,520); Bacus et al., (U.S. 5,227,774);

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell S. Glass whose telephone number is 571-272-3132. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on 571-272-6776. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RSG
6/20/2006



C. LUKE GIERIGAN
PATENT EXAMINER